The claims:

1. A self-cleaning exhaust system including:

a first filter in a path for an air flow;

a first spray outlet for providing a first spray into the air flow before the first filter to enable the first spray to be drawn along the path onto a first surface of the first filter;

a second filter in the path for the air flow;

wherein the first spray has droplets of a size being able to combine with droplets of a contaminant to form combined droplets in the air flow before the first filter to assist the combined droplets being captured by the first filter, and wherein the first filter is a relatively coarse filter and the second filter is a relatively fine filter.

2. A self-cleaning exhaust system as claimed in claim 1, further including a second spray outlet located in said air flow path after said first filter for providing a second cleaning spray onto a rear surface of said first filter.

3. A self-cleaning exhaust system as claimed in either claim 1 or 2, wherein the first spray outlet is at least one nozzle for providing a fine spray and the second spray outlet is at least one further nozzle for providing a coarse spray wherein the combined droplets in the air flow remain fluid.

4. A self cleaning exhaust system as claimed in any one of claims 1 to 3, wherein the first filter and the second filter are in an exhaust hood.

5. A self-cleaning exhaust system as claimed in claim 4, wherein the exhaust hood includes a top, a front wall, a rear wall, and side walls extending between the rear wall and the front wall; there being provided a baffle depending from the top intermediate the front wall and the rear wall.

6. A self-cleaning exhaust system as claimed in claim 5, wherein both the first and second filters are mountable to one of the front wall and the rear wall and the baffle extends between the one of the front wall and the rear wall.

7. A self-cleaning exhaust system as claimed in claim 5 or claim 6, including a plate extending forwardly from the one of the front wall and the rear wall beyond the baffle.

8. A self-cleaning exhaust system as claimed in claim 7, wherein the plate has an upwardly directed projection extending between the baffle and the one of the front wall and the rear wall.

9. A self-cleaning exhaust system as claimed in claim 8, wherein the projection extends upwardly to a height at least as high as the mounting of the first filter to the baffle.

10. A self-cleaning exhaust system as claimed in any one of claims 7 to 9, wherein the first spray outlet is mounted on the plate.

11. A self-cleaning exhaust system as claimed in any one of claims 5 to 10, wherein the second nozzle is mounted on the one of the front wall and the rear wall.

12. A self-cleaning exhaust system as claimed in any one of claims 1 to 11, wherein the first filter is inclined with respect to the path, and covers the path.

13. A self-cleaning exhaust system as claimed in any one of claims 1 to 12, wherein the second filter is inclined with respect to the path, and covers the path.

14. A self-cleaning exhaust system as claimed in claim 13 when appended to claim 12, wherein the first filter is at an angle of inclination to the path substantially the same as that of the second filter.

15. A self-cleaning exhaust system as claimed in any one of claims 1 to 14, further including a tank for containing a cleaning solution for the cleaning sprays.

16. A self-cleaning exhaust system as claimed in claim 15, wherein the cleaning liquid includes water and a degreaser in a required ratio in the range 1:10 to 1:50.

17. A self-cleaning exhaust system including a first filter for filtering contaminants from an air flow along on air flow path, a first spray outlet for providing a fine, first spray of a cleaning solution into the air flow before the first filter to enable the fine, first spray to be drawn into the first filter by the air flow, and a plate for preventing the first spray from moving against the air flow.

18. A self-cleaning exhaust system as claimed in claim 17, wherein the plate is mounted below the first filter and includes an upwardly directed projection at an end of the plate.

19. A method of removing at least one contaminant in an exhaust system including:

providing a first spray into an air flow before a first filter, the first filter being mounted in a path of the air flow to enable the first spray to be drawn along the path onto the first filter,

the first spray being able to combine with droplets of the contaminant in the air flow before the first filter; and

the first spray being able to coat the first filter to assist the first filter in capturing at least one droplet of the contaminant in the air.

20. A method as claimed in claim 19, wherein the first spray is drawn along the path under the influence of the air flow, and the air flow causes at least a part of the first spray to pass through the first filter.

21. A method as claimed in claim 19 or claim 20, including providing a second spray into the air flow after the first filter.

22. A method as claimed in any one of claims 19 to 21, wherein there the second spray is for cleaning a second filter in said airflow path after said first filter.

23. A method as claimed in any one of claims 19 to 21, wherein there the second spray is for cleaning a rear surface of the first filter, and for being drawn under the influence of the airflow to clean a second filter in said airflow path after said first filter.

24. A method as claimed in claim 22 or claim 23, wherein the first filter is a relatively coarse filter, the second filter is a relatively fine filter, the first spray is a relatively fine spray and the second spray is a relatively coarse spray.

25. A method as claimed in any one of claims 19 to 24, wherein the first spray is from a first spray outlet and the second spray is from a second spray outlet, each of the first spray outlet and the second spray outlet being at least one nozzle.

26. A method as claimed in any one of claims 22 to 25, wherein the second spray substantially coats the second filter to assist the second filter in capturing the at least one contaminant.

27. A method as claimed in any one of claims 19 to 26, wherein the first filter and the second filter are in an exhaust hood.

28. A method as claimed in claim 27, wherein the exhaust hood includes a top, a front wall, a rear wall, and side walls extending between the rear wall and the front wall; there being provided a baffle depending from the top intermediate the front wall and the rear wall.

29. A method as claimed in claim 28, wherein both the first and second filters are mountable to one of the front wall and the rear wall and the baffle extends between the baffle and the one of the front wall and the rear wall; there being a plate extending forwardly from the one of the front wall and the rear wall beyond the baffle.

30. A method as claimed in claim 29, wherein the plate has an upwardly directed projection extending between the baffle and the one of the front wall and the rear wall; the projection extending upwardly to a height at least as high as the mounting of the first filter to the baffle; the plate preventing the first spray from moving against the air flow out of the exhaust hood.

31. A method as claimed in claim 29 or claim 30, wherein the first spray outlet is mounted on the plate and the second spray outlet is mounted on the one of the front wall and the rear wall.

32. A method as claimed in any one of claims 19 to 31, wherein the first spray has droplets of a size to combine with droplets of the contaminant to form combined droplets, and to assist the combined droplets being captured by the first filter.

33. A method as claimed in any one of claims 19 to 32, wherein the nature and mesh size of the first filter, and of any additives to the first spray, is determined by the nature of the contaminant.

34. A method as claimed in any one of claims 19 to 33, wherein the nature and mesh size of the second filter, and of any additives to the second spray, is determined by the nature of the contaminant.

35. Apparatus as claimed in any one of claims 1 to 18, wherein the first spray outlet is located within the first filter.

36. Apparatus as claimed in any one of claims 1 to 18 and claim 35, wherein the second spray outlet is located within the second filter.

37. A method as claimed in any one of claims 19 to 34, wherein the first spray outlet is located within the first filter.

38. A method as claimed in any one of claims 19 to 34 and claim 37, wherein the second spray outlet is located within the second filter.

39. A self-cleaning exhaust system as claimed in any one of claims 1 to 18, wherein the system will not operate unless there is air flow through the system.